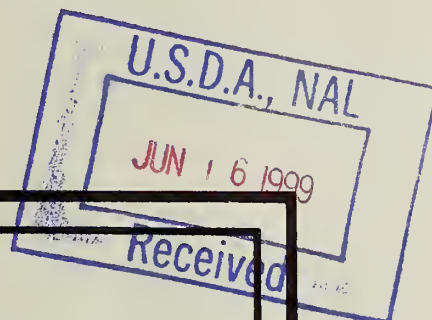


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UNITED STATES DEPARTMENT OF AGRICULTURE
CONSUMER AND MARKETING SERVICE
WASHINGTON, D.C.



**UNITED STATES
STANDARDS**
for grades of
CANNED APPLE JUICE



EFFECTIVE JULY 1, 1971

Second Issue
As Amended

These standards supersede the standards
which have been in effect since
June 26, 1950



This is the second issue, as amended, of the United States Standards for Grades of Canned Apple Juice. These standards are issued by the Department after careful consideration of all data and views submitted.

These standards were published in the Federal Register of May 26, 1950 (15 F.R. 3209) and recodified in the Federal Register of December 9, 1953 (18 F.R. 7921) -- Section 52.311 was amended (22 F.R. 3535) to become effective July 1, 1957. These standards were further amended in Sections 52.303, 52.306, 52.307, 52.308, 52.309, and 52.312 effective July 1, 1971.

These standards are included in the Code of Federal Regulations, Title 7--Agriculture, Part 52.

This grade standard is issued under authority of the Agricultural Marketing Act of 1946 which provides for the issuance of official U.S. grades to designate different levels of quality for the voluntary use of producers, buyers, and consumers. Official grading service is also provided under this Act upon request of the applicant and upon payment of a fee to cover the cost of the service.

As is the case of other standards for processed fruits and vegetables, these standards are designed to serve as a convenient basis for sales, for establishing quality control programs, and for determining loan values. They will also serve as a basis for the inspection of this commodity by Federal inspection service, which is available for the inspection of other processed products as well.

These standards are issued by the Department after careful consideration of all data and views submitted and the Department welcomes suggestions which might aid in improving these standards in future revisions. Comments may be submitted to, and copies of these standards obtained from:

Chief, Processed Products Standardization and Inspection Branch
Fruit and Vegetable Division, C&MS
U.S. Department of Agriculture
Washington, D. C. 20250

UNITED STATES STANDARDS FOR GRADES OF CANNED APPLE JUICE ¹

Effective July 1, 1971

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PRODUCT DESCRIPTION, STYLES, AND GRADES

§ 52.301 Product description.

Canned apple juice is the unfermented liquid prepared from the first pressing juice of properly prepared sound, fresh apples, excluding the liquid obtained from any additional residual apple material. Such apple juice is prepared without any concentration, without dilution, or without the addition of sweetening ingredients; may be processed with or without the addition of antioxidants; and is sufficiently processed by heat to assure preservation of the product in hermetically sealed containers (either metal or glass).

¹ Compliance with the provisions of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act or with applicable State laws and regulations.

§ 52.302 Styles of canned apple juice.

- (a) Style I, Clear (typical of "clarified" apple juice).
(b) Style II, Cloudy (typical of "non-clarified" apple juice, but not a crushed or disintegrated apple product).

§ 52.303 Grades of canned apple juice.

- (a) "U.S. Grade A" or "U.S. Fancy" is the quality of canned apple juice that possesses a very good color; is practically free from defects; possesses a very good flavor; and scores not less than 90 points when scored in accordance with the scoring system outlined in this subpart.
(b) "U.S. Grade B" or "U.S. Choice" is the quality of canned apple juice that possesses a good color; is fairly free from defects; possesses a good flavor; and scores not less than 80 points when scored in accordance with the scoring system outlined in this subpart.
(c) "Substandard" is the quality of canned apple juice that fails to meet the requirements of U.S. Grade B.

FILL OF CONTAINER

§ 52.304 Recommended fill of container.

The recommended fill of container is not incorporated in the grades of the finished product since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that each container be filled as full as practicable with apple juice and that the product occupy not less than 90 percent of the volume of the container.

FACTORS OF QUALITY

§ 52.305 Ascertaining the grade.

- (a) The grade of canned apple juice may be ascertained by considering, in conjunction with the requirements of

the respective grade, the respective ratings for the factors of color, absence of defects, and flavor.

(b) The relative importance of each factor is expressed numerically on the scale of 100. The maximum number of points that may be given each factor is:

Factors:	Points
Color-----	20
Absence of defects-----	20
Flavor-----	60
Total score-----	100

§ 52.306 Ascertaining the rating for each factor.

The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor is inclusive (for example, "18 to 20 points" means 18, 19, or 20 points).

§ 52.307 Color.

(a) (A) *classification*. Canned apple juice that possesses a very good color may be given a score of 18 to 20 points. "Very good color" means that the color is bright and typical of freshly pressed juice and may vary from characteristic light non-amber shades to medium amber shades; that the canned apple juice of Style I, Clear, is sparkling clear and transparent; and that canned apple juice of Style II, Cloudy, may range from a slight translucent appearance to a definitely hazy appearance.

(b) (B) *classification*. If the canned apple juice possesses a good color, a score of 16 or 17 points may be given. Canned apple juice that falls into this classification shall not be graded above U.S. Grade B, regardless of the total score for the product (this is a limiting rule). "Good color" means that the color is typical of canned apple juice, which color may be deep amber or other typical color but is not off color for the respective style.

(c) (SStd) *classification*. Canned apple juice that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 15 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.308 Absence of defects.

The factor of absence of defects refers to the degree of freedom from sediment or other residue, dark specks, particles of seeds, coarse particles of pulp, or other defects.

(a) (A) *classification*. Canned apple juice that is practically free from defects may be given a score of 18 to 20 points. "Practically free from defects" means that the canned apple juice may possess a slight amount of sediment or residue of an amorphous nature; may possess not more than a trace of dark specks or of sediment or residue of a non-amorphous nature; and shall be free from particles of seed, coarse particles of pulp, or other defects.

(b) (B) *classification*. If the canned apple juice is fairly free from defects, a score of 16 or 17 points may be given. Canned apple juice that falls into this classification shall not be graded above U.S. Grade B, regardless of the total score for the product (this is a limiting rule). "Fairly free from defects" means that the canned apple juice may possess a slight amount of sediment or residue of an amorphous or nonamorphous nature, of dark specks, of particles of seed, of coarse particles of pulp, or of any other defects, provided such defects do not seriously affect the appearance or palatability of the product.

(c) (SStd) *classification*. Canned apple juice that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 15 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§ 52.309 Flavor.

The factor of flavor refers to the degree of excellence and palatability of a distinct apple juice flavor and aroma typical of apple juice that has been properly processed.

(a) (A) *classification*. Canned apple juice that possesses a very good flavor may be given a score of 54 to 60 points. "Very good flavor" means that the apple juice has a fine, distinct fruity flavor that is free from astringent flavors, flavors due to overripe apples, oxidation,

caramelization, ground or musty flavors, or any other undesirable flavor; and in addition shall meet the following requirements:

Brix. Not less than 11.5°.

Acid. Not less than 0.25 g. nor more than 0.70 g., calculated as malic acid, per 100 ml. of juice.

(b) (B) *classification.* Canned apple juice that possesses a good flavor may be given a score of 48 to 53 points. Canned apple juice that falls into this classification shall not be graded above U.S. Grade B, regardless of the total score for the product (this is a limiting rule). "Good flavor" means that the canned apple juice has a normal flavor which may be slightly astringent or slightly affected by overripe apples, caramelization, or ground or musty flavors, but is free from objectionable flavors or objectionable odors of any kind, and in addition meets the following requirements:

Brix. Not less than 10.5°.

Acid. Not less than 0.20 g. nor more than 0.80 g., calculated as malic acid, per 100 ml. of juice.

(c) (SStd) *classification.* Canned apple juice that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 47 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

EXPLANATIONS AND ANALYSES

§ 52.310 Explanation of terms.

(a) "Brix" means the degrees Brix of canned apple juice when tested with a Brix hydrometer calibrated at 20 degrees C. (68 degrees F.). If canned apple juice is tested at a temperature other than 20 degrees C. (68 degrees F.) the applicable temperature correction shall be made to the reading of the scale as prescribed in "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists." The degrees Brix of canned apple juice may be determined

by any other method which gives equivalent results.

(b) "Acid" means grams of acid (calculated as malic acid) per 100 ml. of juice in canned apple juice determined by titration with standard sodium hydroxide solution, using phenolphthalein as indicator or any other satisfactory indicator.

LOT INSPECTION AND CERTIFICATION

§ 52.311 Ascertaining the grade of a lot.

The grade of a lot of the processed product covered by these standards is determined by the procedures set forth in the regulations governing inspection and certification of processed fruits and vegetables, processed products thereof, and certain other processed food products (§§ 52.1 to 52.87).

[22 F. R. 3547, May 22, 1957]

SCORE SHEET

§ 52.312 Score sheet for canned apple juice.

Size and kind of container.....	
Container mark or identification.....	
Label.....	
Liquid measure (fluid ounces).....	
Vacuum (in inches).....	
Brix (degrees).....	
Acid (malic: grams/100 ml.).....	
Factors	Score points
Color.....	20 { (A) 18-20 (B) ¹ 16-17 (SStd.) ¹ 10-15
Absence of defects.....	20 { (A) 18-20 (B) ¹ 16-17 (SStd.) ¹ 10-15
Flavor.....	60 { (A) 54-60 (B) ¹ 48-53 (SStd.) ¹ 10-47
Total score.....	100
Grade.....	

¹ Indicates limiting rule.

Dated: February 5, 1971.

G. R. GRANGE,
Deputy Administrator,
Marketing Services.

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